ANNIVERSARIES*

GASYMOV MIRABBAS GEOGJA OGLU
(to the 60-th anniversary)

On the 11-th July in 1999 was sixtieth anniversary of academician of the Academy of Science of Azerbaijan, doctor of physical-mathematical science, professor Gasymov Mirabbas Geoja oglu.

M.G. Gasymov was born in 1939, in the village Narimankend of region Shamachy of Azerbaijan republic.

In 1956 he joined to the faculty of Mechanics-Mathematics of Azerbaijan State University named after S.M. Kirov and in 1958 was transfered to the corresponding faculty of Moscow State University, named after M.V. Lomonosov under the offer of the deceased academician of the Academy of Science of Azerbaijan A.I. Gueynov. After graduating study in MSU on specialty "mathematics", he was offered a post-graduate work in MSU. M.G. Gasymov's scientific activities are begin from this moment.

At his first works M.G. Gasymov found necessary and sufficient conditions that two sequences of alternated numbers $\{\lambda_n\}$ and $\{\mu_n\}$ would be eigen values of the same singular equation of the second order of Schrödinger type in the halfaxes with different boundary conditions at zero, and noted effective method on constructing potential by this sequences. The difficulty of this problem consisted on that, the sequence of eigen values of singular operators have not definite asimptotical behaviour on an infinity.

M.G.Gasymov found special method of solving this problem and suggested to use instead of asimptotics of each eigen value the mean asimptotics for sum of difference $\sigma(\lambda) = \sum_{\lambda_n<\lambda}(\mu_n - \lambda_n)$, for which have been managed to find asimptotics and to formulate necessary and sufficient condition in terms of function $\sigma(\lambda)$. In passing, M.G. Gasymov at the first time found regularized trace of singular differential operators distinguished from each other by finite indignation and boundary conditions.

In 1964, on this works M.G. Gasymov defend candidate dissertation at the Erudite Soviet of the faculty of Mechanics-Mathematics of MSU named after M.V. Lomonosov. The dissertation has been admitted as "prominent" by special decision of soviet.

* This heading is open under the offer of nowadays deceased main editor of the magazine academician Faramaz Gazanfar oglu Maksudov

At the same year he joined to work as assistant in Moscow Physical-Technical Institute; and in 1965 he passed to post of senior lecturer at the chair mathematics of Military Engineering Academy named after F.G. Dzerjinski.

Further completely have been solved inverse problems of spectral analyses for the system of differential equations of Dirac type by M.G. Gasymov.

In 1967 M.G. Gasymov defent dissertation on theme "Some questions of the theory of self-adjoined and non-self-adjoined differential operators", in MSU on erudite degree of doctor of physical-mathematical science which was translated into English in USA. From September in 1968, he engaged the post of deam of the faculty Mechanics-Mathematics of ASU named after S.M. Kirov, and from September in 1972, he began to work as a head of chair of applied mathematics.

From 1970 to 1976 he was manager of department of differential equations with partial derivatives in the Institute of mathematics and mechanics of Academy of Science of Azerbaijan.

M.G. Gasymov's prominent contribution to spectral theory is his investigations on the theory of non-self-adjoined operators with continuous part of spectrum.

Firstly by him was solved the problem of decomposition by solutions of problem of scattering theory of non-self-adjoined multidimensional Schrödinger operator with exponentially decreased potential; moreover M.G. Gasymov exploit the method of determination by the help of regularization of main part of residium in the neighbourhood of spectral peculiarities.

This idea is succeeded in abstracting and distinguished vast class of non-self-adjoined operators for which have place generalized spectral decomposition.

M.G. Gasymov's essential achievement is investigations on multicompleteness of parts of system of eigen and connected vectors of the Keldish bunches of operators and they factorization.

For investigations of this questions M.G. Gasymov fixed relation between denoted above problems and Cauchy problem with less number of initial conditions for operator-differential equations, and symbol coinciding with given operator bunch. In this connection one has to note, that by M.G. Gasymov has been put an solved correct boundary value problem for vast class of nontype operator-differential equations.

For one dimensional Schrödinger system with decreasing potential, still at the middle of 50-th years has been solved inverse problem of scattering theory.

However, solution of such problem for the system with internal energies is stayed as problem . Difficulty of this problem consisted in that, the potential on an infinity doesn't tend to zero and in continuous spectrum exists discrete part, moreover in different parts of spectrum the scattering matrix has different structures. This difficult and necessary problem has been solved in M. G. Gasymov's works.

The series of works of M. G. Gasymov, devoted to spectral analyses for equations with braked coefficients arrised in geophysics, 're open new direction.

Under the M.G. Gasymov's leadership and with his immediate participation was conducted intensive investigations on spectral theory of differential operator bunches with multi characteristics in main part. In particular, have been constructed kernels of transformation operators, has been found effect of dependence of divisible fulled number of root functions from number of separated boundary conditions have been solved inverse problems of spectral analyses for quadratic bunch of diffusion operators, and also for wide class of ordinary differential operators of the even order.

Special meaning has M.G.Gasymov's scientific results on construction spectral analyses of wide class of ordinary differential operators with periodic coefficients.

Here at the first time for the equations of higher order managed to put and to solve effectively the inverse problem. This method permitted him to solve difficult

problem on restoring ordinary differential operators with coefficients of Diriclet series type by the scattering dares, moreover all constructions has constructive character.

We're glad to note that now M.G. Gasymov is continue his scientific investigations, also. So, for example, lately has been solved Chochshtat problem, namely Stourm-Liuville singular problem with partially noncoinciding eigen values with has co-authority.

In 1980 M.G. Gasymov was chosen to the member-correspondent of Azerbaijan AS, and from 1989 he is a real member of Azerbaijan AS.

Academician M.G. Gasymov promulgated about 100 scientific works, big part of which has been printed on authoritative central magazines of former Soviet Union.

AcademicianM.G. Gasymov's articles are one of the oftenly referred mathematical works, promulgated in the space of former Soviet Union. Academician M.G. Gasymov is a creator of the modern school of mathematicians in Azerbaijan.

He directs to scientific works of big number of mathematicians and gives special attention to the preparation of qualificated scientific personnels.

M.G. Gasymov executed the big scientific-organized work connectedly with the organization and development of the faculty of applied mathematics and cybernetics of BSU. From 1990 to 1992 he was chanceller of BSU named after M.E. Rasulzadeh.

Under his management are defent about 70 thesises for a Doctor degree and Candidate degree in different cities of former Soviet Union.

He was participant of three International Mathematicians Congresses (Moscow-in 1966, France- in 1970, Canada- in 1974), where addressed with message, twice.

By the invitation of International Mathematical Center named after S. Banach, at Warsaw (Poland in 1977), M.G. Gasanov had gave a series of lectures.

M.G. Gasanov had translate to Russian a series of significant scientific works and he was one of translators of the well-known book "Linear operators" of N. Danford and T. Schwarz in three-volume and promulgated a series of popular articles on mathematics also.

He is an author of section "Spectral theory of differential operators" of five-volume "Mathematical Encyclopaedia".

He is decorated with Gold Medal named by academician M.B. Keldish for ponderable contribution to the development of science.

Now academician M.G. Gasymov is continuing his both the scientific, and the pedogogical activity, also. We congratulate academician M.G. Gasymov, which bring enormous contribution to the preparation of scientific personnels and to the development of science in Azerbaijan and in outside, on his sixtieth anniversary, and also we wish to him sound health and very success in his life.

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